



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/014,889	12/14/2001	Martin D. Nathanson	13407.00010	2385
27160	7590	02/09/2005	EXAMINER	
KATTEN MUCHIN ZAVIS ROSENMAN 525 WEST MONROE STREET CHICAGO, IL 60661-3693			LESNIEWSKI, VICTOR D	
			ART UNIT	PAPER NUMBER
			2155	

DATE MAILED: 02/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/014,889	Applicant(s) NATHANSON, MARTIN D.	
	Examiner Victor Lesniewski	Art Unit 2155	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED. (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 December 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>5/10/02 & 1/15/03</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This application has been examined.
2. Claims 1-20 are now pending.

Priority

3. Acknowledgment is made of the applicant's claim for foreign priority based on applications filed in Canada on 6/19/2000 and 10/15/2001. It is noted, however, that applicant has not filed a certified copy of these applications (PCT/CA00/00712 and PCT/CA01/01420) as required by 35 U.S.C. 119(b).

Information Disclosure Statement

4. The IDS filed 5/10/2002 and the IDS filed 1/15/2003 have been considered.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1, 2, 4-9, 15, 16, 19, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lang et al. (U.S. Patent Number 6,295,492), hereinafter referred to as Lang, in view of Boukobza et al. (U.S. Patent Number 6,122,664), hereinafter referred to as Boukobza.
7. Lang disclosed a system for collecting diagnostic information from one or more motor vehicles and transmitting it to a central server. Lang's system operates in conjunction with

typical vehicular on-board diagnostic systems. In an analogous art, Boukobza disclosed a system for monitoring different objects at a plurality of nodes in which a management node is used to configure monitoring. Similar to Lang's system, Boukobza's system uses a plurality of data collection modules to measure static and dynamic parameters particular to an object.

8. Concerning claims 1 and 20, Lang did not explicitly state that his system could assemble an event report and package that report using an SNMP-derived protocol for transmission to a remote monitoring recipient. However, Boukobza does state these features. The system of Boukobza creates an action log in order to track events and transmits the collected data to the management node using an SNMP-based protocol. Since the inventions encompass the same field of endeavor, it would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the system of Lang by adding the ability to assemble an event report and package the report using an SNMP-derived protocol for transmission to a remote monitoring recipient as provided by Boukobza. Here, the combination satisfies the need for more efficiently monitoring the operation of one or more applications in one or more nodes. See Boukobza, column 2, lines 14-20. This rationale also applies to those dependent claims utilizing the same combination.

9. Concerning claim 19, Lang did not explicitly state that his system could package data in a data packet using a protocol derived from SNMP and convey that packet over a data link in such a way that the protocol data unit being issued is in response to a request by the remote monitoring recipient and contains both the request and requested values in the request while being encapsulated within a single message and in a single unfragmented network packet. However, Boukobza does state these features. In response to a request for data, the system of

Art Unit: 2155

Boukobza transmits collected data to the management node using a protocol data unit based on SNMP. Since the inventions encompass the same field of endeavor, it would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the system of Lang by adding the ability to package data in a data packet using a protocol derived from SNMP and convey that packet over a data link in such a way that the protocol data unit being issued is in response to a request by the remote monitoring recipient and contains both the request and requested values in the request while being encapsulated within a single message and in a single unfragmented network packet as provided by Boukobza. Again, the combination satisfies the need for more efficiently monitoring the operation of one or more applications in one or more nodes. See Boukobza, column 2, lines 14-20.

10. Thereby, the combination of Lang and Boukobza discloses:

- <Claim 1>

A method of collecting vehicle operation data from a vehicle for later transmission to a remote monitoring recipient in a manner to minimize the bandwidth requirements for the later transmission, comprising the steps of: providing a vehicle on-board computing device (Lang, figure 1, item 20); providing a number of data acquisition modules, each to measure one or more operating characteristics of the vehicle, the operating characteristics corresponding to current values of a set of managed objects (Lang, figure 1, items 3-5); interfacing the vehicle on-board computing device with each of the data acquisition modules (Lang, column 3, lines 22-28); configuring the vehicle on-board computing device to: a) form a diagnostic information base for receiving and storing values for each of the managed objects from each of the corresponding data acquisition modules (Lang,

Art Unit: 2155

column 4, lines 8-27); b) assemble an event report based on information contained in the diagnostic information base (Boukoba, column 5, lines 47-62 and column 26, lines 51-67); and c) package the event report in a protocol data unit according to an SNMP-derived protocol (Boukoba, column 1, lines 64-66).

- <Claim 2>

A method as defined in claim 1 wherein the operating characteristics include GPS position, engine speed, road speed, or engine temperature, or an OBD-II parameter related to vehicle emissions (Lang, column 3, lines 40-49).

- <Claim 4>

A method as defined in claim 1, further comprising the step of enabling the vehicle on-board computing device to: a) establish a data link with the remote monitoring recipient; and b) convey the protocol data unit over the data link (Boukoba, column 6, lines 30-34).

- <Claim 5>

A method as defined in claim 4, further comprising the step of enabling the remote monitoring recipient to issue a GET protocol data unit to retrieve the current values for a specific set of managed objects from the vehicle on-board computing device (Boukoba, column 13, lines 21-40).

- <Claim 6>

A method as defined in claim 5 further comprising the step of enabling the remote monitoring recipient to wait for an acknowledgement to the GET protocol data unit by the vehicle on-board computing device (Boukoba, column 13, lines 37-40).

- <Claim 7>

A method as defined in claim 4, further comprising the step enabling the vehicle on-board computing device to issue a TRAP protocol data unit to report a vehicular event (Boukobza, column 1, lines 63-64).

- <Claim 8>

A method as defined in claim 7 further comprising the step of enabling the vehicle on-board computing device to: a) store threshold values or a reporting interval for each vehicular event (Boukobza, column 5, lines 19-32); and b) issue each TRAP protocol data unit, either when a threshold value has been exceeded or at a corresponding reporting interval (Boukobza, column 2, lines 46-55).

- <Claim 9>

A method as defined in claim 8 wherein the TRAP protocol data unit reports a GPS position (Lang, column 3, lines 40-49).

- <Claim 15>

A method as defined in claim 4, further comprising the step of enabling the remote monitoring recipient to issue a SET protocol data unit to the vehicle on-board computing device to set one or more of the managed objects (Boukobza, column 16, lines 25-39).

- <Claim 16>

A method as defined in claim 4, wherein the data link is wireless and includes an radio frequency band under the IEEE 802.11 standard, a satellite RF packet network or a terrestrial RF packet network (Lang, figure 1, item 40).

- <Claim 19>

Art Unit: 2155

A method of conveying vehicle operation data from a vehicle to a remote monitoring recipient, comprising the steps of: establishing a data link between the vehicle and the remote monitoring recipient (Lang, figure 1, item 40); collecting vehicle operation data from data sources in the vehicle (Lang, column 4, lines 8-27); packaging the vehicle operation data in a data packet using protocol derived from SNMP (Boukoba, column 1, lines 64-66 and column 5, lines 47-62); and conveying the data packet over the data link, the protocol data unit being issued in response to a request by the remote monitoring recipient and containing both the request and requested values in the request and being encapsulated within a single message and in a single unfragmented network packet (Boukoba, column 6, lines 30-34 and column 13, lines 21-40).

- <Claim 20>

A computer implemented system for conveying vehicle operation data from a vehicle to a remote monitoring recipient, comprising: an vehicle on-board computing device in communication with a number of vehicle operation data sources in the vehicle (Lang, figure 1, item 20); a wireless communications device for establishing a wireless data link with the vehicle on-board computing device and the remote monitoring recipient (Lang, figure 1, item 40); the vehicle on-board computing device being enabled to package the vehicle operation data in a data packet using protocol derived from SNMP for transmission to the remote monitoring recipient over the wireless data link (Boukoba, column 1, lines 64-66; column 5, lines 47-62; and column 6, lines 30-34).

Since the combination of Lang and Boukoba discloses all of the above limitations, claims 1, 2, 4-9, 15, 16, 19, and 20 are rejected.

11. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Lang and Boukobza, as applied above, in view of Official Notice.

12. The combination discloses:

- <Claim 3>

A method as defined in claim 2 wherein the OBD-II parameter includes misfire detection (Lang, column 1, lines 43-54 and Official Notice).

Misfire detection was well known in the art at the time of the applicant's invention as it was clearly stated as part of the OBD-II regulations. Therefore, Official Notice is taken.

Since the combination of Lang, Boukobza, and Official Notice discloses all of the above limitations, claim 3 is rejected.

13. Claims 10-14, 17, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lang in view of Boukobza, as applied above, further in view of Case et al. ("RFC 1905, Protocol Operations for SNMPv2," IETF, January 1996), hereinafter referred to as Case.

14. The combination of Lang and Boukobza disclosed a system for collecting diagnostic information from one or more motor vehicles and transmitting it to a central server by creating an event report and packaging the report using an SNMP-derived protocol. In an analogous art, Case disclosed an overview of operations for using SNMPv2 in a network communications management system. Both the previous combination and Case's disclosure utilize features of SNMP to create operational network management environments.

Art Unit: 2155

15. Concerning claims 10, 17, and 18, the combination of Lang and Boukobza did not explicitly state the use of the INFORM PDU or the ability to exclude such fields as ERROR STATUS, ERROR INDEX, and LENGTH from the PDU. However, Case does state these features as he delves into possible variations in SNMP in more detail. Since the inventions encompass the same field of endeavor, it would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the combination of Lang and Boukobza by adding the ability to use an INFORM PDU and exclude the ERROR STATUS, ERROR INDEX, and LENGTH fields from the PDU as provided by Case. Here as well, the combination satisfies the need for more efficiently monitoring the operation of one or more applications in one or more nodes. See Boukobza, column 2, lines 14-20. This rationale also applies to those dependent claims utilizing the same combination.

16. Thereby, the combination of Lang, Boukobza, and Case discloses:

- <Claim 10>

A method as defined in claim 4, further comprising the step of issuing an INFORM protocol data unit from the vehicle to report an exceptional vehicular event (Case, section 4.2.7, first paragraph).

- <Claim 11>

A method as defined in claim 10, further comprising the step of enabling the vehicle on-board computing device to: a) store any one of a plurality of specified exceptional vehicular events in the diagnostic information base, including one or more regulatory exceptions, maintenance exceptions or operational exceptions (Lang, column 2, lines 17-

22); and b) issue the INFORM protocol data unit when any one of the specified events occurs (Boukobza, column 5, lines 47-62 and Case, section 4.2.7, first paragraph).

- <Claim 12>

A method as defined in claim 11 wherein the INFORM protocol data unit is sent as a result of a regulatory threshold level being exceeded (Boukobza, column 5, lines 19-32 and Case, section 4.2.7, first paragraph).

- <Claim 13>

A method as defined in claim 11 further comprising the step of enabling the vehicular onboard computing device to wait for a confirmation that a previous INFORM protocol data unit has been logged in a data base by the remote monitoring recipient (Case, section 4.2.7, third and fourth paragraphs).

- <Claim 14>

A method as defined in claim 13, further comprising the step of re-transmitting the INFORM protocol data unit in the absence of a confirmation that a previous INFORM protocol data unit has been logged in a database by the remote monitoring recipient (Case, section 4.2.7, third and fourth paragraphs).

- <Claim 17>

A method as defined in claim 4 wherein the protocol data unit is a REQUEST protocol data unit, the protocol data unit excluding the ERROR STATUS and ERROR INDEX fields of the SNMP protocol (Case, section 4.2.7, third paragraph).

- <Claim 18>

Art Unit: 2155

A method as defined in claim 4 wherein the protocol data unit excludes the LENGTH field of each variable binding of the SNMP protocol (Case, section 4.2, third paragraph and section 4.2.5(4)).

Since the combination of Lang, Boukobza, and Case discloses all of the above limitations, claims 10-14, 17, and 18 are rejected.

Conclusion

17. The prior art made of record and not relied upon is considered pertinent to the applicant's disclosure.

- Hamburg (U.S. Patent Number 5,177,464) disclosed an on-board monitoring system for an automotive emission catalyst.
- Razavi et al. (U.S. Patent Number 6,253,122) disclosed a vehicle dashboard that includes a processor which is operable to receive vehicle information and generate graphic signals representative of the information on a monitor.
- Durham et al. (U.S. Patent Number 6,286,040) disclosed an interface for setting expression on an SNMP agent.
- Case, J.; Fedor, M.; Schoffstall, M.; and Davin, J., "RFC 1157, A Simple Network Management Protocol," IETF, May 1990, 36 pgs., disclosed an overview of SNMP, a simple protocol by which management information for a network element may be inspected or altered by logically remote users.

Art Unit: 2155

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Victor Lesniewski whose telephone number is 571-272-3987.

The examiner can normally be reached on Monday through Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain Alam can be reached on 571-272-3978. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Victor Lesniewski
Patent Examiner
Group Art Unit 2155



HOSAIN ALAM
SUPERVISORY PATENT EXAMINER